

**WHAT IS CLAIMED IS:**

1. A printing system comprising:

(a) a printing apparatus for printing a printed matter on the basis of  
5 rasterize-processed printing data, said printing apparatus comprising:

(a-1) a raster image processing element for performing raster image  
processing of printing data;

(a-2) a storage element for storing said rasterize-processed printing data; and

(a-3) a job ticket issue element for issuing a first job ticket in which setting  
10 information for printing a first printed matter is described on the basis of first printing  
data stored in said storage element;

(b) a printing data creating apparatus for creating printing data, comprising:

(b-1) a layout creating element for creating the layout of a printed matter  
page by page;

15 (b-2) a page arrangement processing element for performing page  
arrangement processing of a plurality of layout pages, said page arrangement processing  
element being capable of performing page rearrangement processing on the basis of said  
first printing data being rasterize-processed, by referring to the description of said first job  
ticket;

20 (b-3) a job ticket obtaining element for obtaining said first job ticket; and

(b-4) a job ticket update element for creating a second job ticket describing  
setting information for printing a second printed matter, by rewriting the content of said  
first job ticket on the basis of the result of said page rearrangement processing, wherein

said printing apparatus executes printing of said second printing matter by  
25 referring to said second job ticket.

2. The printing system according to claim 1 wherein

the result of reference to said second job ticket indicating that a new page not contained in said first printed matter is contained in said second printed matter, said  
5 printing apparatus performs said raster image processing of page data corresponding to said new page.

3. The printing system according to claim 2 wherein

said printing data creating apparatus and said printing apparatus are connected  
10 to each other via a network, data being given and received between said printing data creating apparatus and said printing apparatus via said network.

4. The printing system according to claim 3 wherein

said printing apparatus further comprises:

15 (a-4) a thumbnail creating element for creating a thumbnail image page by page on the basis of said rasterize-processed printing data, and wherein

said printing data creating apparatus obtains said thumbnail image via said network, said page arrangement processing and said page rearrangement processing in said page arrangement processing element being performed by using said thumbnail  
20 image.

5. The printing system according to claim 1 wherein

said page arrangement processing element comprises:

(b-2-1) a page replacement processing element for performing replacement  
25 processing of replacing page data of at least one page of said first printed matter with

page data for replacement, as said page arrangement processing and said page rearrangement processing, and wherein

said job ticket update element creates said second job ticket by adding information related to said replacement processing to said first job ticket, on the basis of  
5 the result of said replacement processing, and

said printing apparatus obtains said second job ticket and said page data for replacement and prints said second printed matter on the basis of said printing data and said page data for replacement, in accordance with the description of said second job ticket.

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6. The printing system according to claim 5 wherein

said printing apparatus performs raster image processing of only said page data for replacement when printing said second printed matter.

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7. A printing data creating apparatus for creating printing data by creating the layout of a printed matter page by page, said printing data creating apparatus comprising:

(a) a job ticket obtaining element for obtaining a first job ticket describing setting information for printing a first printed matter;

(b) a page arrangement obtaining element for performing page arrangement  
20 processing of a plurality of layout pages, said page arrangement processing element being capable of performing page rearrangement processing on the basis of first printing data being rasterize-processed, by referring to the description of said first job ticket; and

(c) a job ticket update element for creating a second job ticket describing setting information for printing a second printed matter, by rewriting the content of said first job  
25 ticket on the basis of the result of said page rearrangement processing.

8. The printing data creating apparatus according to claim 7 wherein  
said page arrangement processing element comprises:

(b-1) a page replacement processing element for performing replacement  
5 processing of replacing page data of at least one page of said first printed matter with  
page data for replacement, as said page arrangement processing and said page  
rearrangement processing, and wherein

said job ticket update element creates said second job ticket by adding  
information related to said replacement processing to said first job ticket, on the basis of  
10 the result of said replacement processing.

9. The printing data creating apparatus according to claim 8 wherein

said replacement processing in said page replacement processing element is  
performed by using said thumbnail image.

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10. A printing apparatus for executing printing by performing raster image  
processing of printing data, said printing apparatus comprising:

(a) a storage element for storing rasterize-processed printing data; and

(b) a job ticket issue element for issuing a first job ticket in which setting  
20 information for executing a first printed matter is described on the basis of said printing  
data stored in said storage element, wherein

said printing apparatus obtains a second job ticket and page data for  
replacement used in replacement processing in a predetermined printing data creating  
apparatus and said printing apparatus prints a second printed matter on the basis of said  
25 printing data and said page data for replacement, in accordance with the description of

said second job ticket, said second job ticket being created by adding information related to said replacement processing to said first job ticket in said printing data creating apparatus.

5           11. The printing apparatus according to claim 10, performing raster image processing of only said page data for replacement when printing said second printed matter.

12. The printing apparatus according to claim 11 further comprising:  
10           (c) a thumbnail creating element for creating a thumbnail image page by page on the basis of said rasterize-processed printing data.

13. A method of executing printing by replacing part of a printing matter page by page, comprising the steps of:

15           (a) issuing a first job ticket on the basis of printing data, said printing data being subjected to raster image processing when a first printed matter is first printed and then stored in a predetermined storage element, said first job ticket describing setting information for printing said first printed matter;

20           (b) replacing page data of at least one page of said first printed matter with page data for replacement;

            (c) creating a second job ticket by adding information related to the processing in the step (b) to said first job ticket on the basis of the result of the step (b);

            (d) performing raster image processing of said page data for replacement; and

25           (e) printing said second printed matter on the basis of said printing data and said rasterize-processed page data for replacement.

14. A program executed on a computer such that said computer functions as a printing data creating apparatus for creating printing data by creating the layout of a printed matter page by page, said printing data creating apparatus comprising:

5 (a) a job ticket capturing element for capturing a first job ticket describing setting information for printing a first printed matter;

(b) a page arrangement processing element for performing page arrangement processing of a plurality of layout pages, said page arrangement processing element being capable of performing page rearrangement processing on the basis of first printing data  
10 being rasterize-processed, by referring to the description of said first job ticket; and

(c) a job ticket update element for creating a second job ticket describing setting information for printing a second printed matter, by rewriting the content of said first job ticket on the basis of the result of said page rearrangement processing.

15 15. The program according to claim 14, causing said computer to function as said printing data creating apparatus in which said page arrangement processing element comprises:

(b-1) a page replacement processing element for performing replacement processing of replacing page data of at least one page of said first printed matter with  
20 page data for replacement, as said page arrangement processing and said page rearrangement processing, wherein

said job ticket update element creates said second job ticket by adding information related to said replacement processing to said first job ticket, on the basis of the result of said replacement processing.

16. A program executed on a computer such that said computer is implemented as a printing apparatus, said printing apparatus comprising:

(a) a storage element for storing rasterize-processed printing data; and

(b) a job ticket issue element for issuing a first job ticket in which setting  
5 information for executing a first printed matter is described on the basis of first printing data stored in said storage element, wherein

said printing apparatus obtains a second job ticket and page data for replacement used in replacement processing in a predetermined printing data creating apparatus, and said printing apparatus prints a second printed matter on the basis of said  
10 printing data and said page data for replacement, in accordance with the description of said second job ticket, said second job ticket being created by adding information related to said replacement processing to said first job ticket in said printing data creating apparatus.